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AN INTERGENERIC HYBRID IN THE CYPERACEAE.

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(Plate 125.)

In September, 1915, Mr. C. A. Weatherby discovered on the sandy shore of Simmons Pond in Dennis, Massachusetts, a very remarkable plant which combined the aspect of *Rynchospora* with elongate many-scaled spikelets similar to those of *Cyperus*. The material originally collected was practically all sterile, the spikelets bearing no well-formed flowers. In view of the surprisingly large number of representatives known on Cape Cod of extreme austral groups, attempts were made to identify the Dennis plant with austral genera of the *Cyperaceae*, but nothing was found with which it could be satisfactorily placed.

In August, 1918, Mr. Bayard Long and the writer visited Simmons Pond with the hope of rediscovering Mr. Weatherby's anomalous plant, which happily was found at apparently the original station, a single tussock from which a portion had obviously been removed. A few additional specimens were taken but the root was undisturbed, and study of this material shows it to be identical with Mr. Weatherby's specimens except that in the new material a few aborted flowers are present. These flowers completely lack a perianth, as in *Cyperus*, but are surrounded by 2 or 3 scales, as in *Rynchospora*, and the minute and shrunken achene is capped by a clearly discernible, though shrunken, tubercle, as in *Rynchospora*. The few flowers found so clearly combine the traits of *Cyperus* and *Rynchospora*, the genera which are closely simulated by the inflorescences of the plant, that it

seems a safe conclusion to state that this colony is a sterile hybrid of members of these two genera.

The only members of the genera found on the sandy beach of Simmons Pond are the common *Cyperus dentatus* Torr. and *Rynchospora capitellata* (Michx.) Vahl.[1], the plant which has been generally known in the northern United States as *R. glomerata*. The hybrid colony has the foliage much firmer and more leathery than in the *Rynchospora*, in this character strongly suggesting *Cyperus dentatus*. The culms are densely cespitose, as in the *Rynchospora*, and are without any suggestion of the elongate stolons of the *Cyperus*. The cauline leaves are rapidly reduced in size, as in the *Rynchospora*, and the axillary and terminal corymbs are strongly castaneous as in that plant but with a more pronounced umbelliform aspect, while the very slender spikelets have the aspect of those of a *Cyperus*, being linear-cylindric with very numerous (20–40) closely imbricated somewhat carinate scales. The latter, however, are spirally arranged as in *Rynchospora* but have the characteristic short awn of *Cyperus dentatus*. In the absence of a perianth such flowers as have developed show traits of *Cyperus* but in the large subulate tubercle and the secondary spikelets *Rynchospora capitellata* is suggested.

It is certainly a very unusual and possibly an unprecedented circumstance to find an apparent hybrid between plants of such remote affinity as *Cyperus* and *Rynchospora*, members of very different tribes of the *Cyperaceae*. The characters, however, are so conclusive a blend of those of the two common members of these genera at Simmons Pond that it is difficult to avoid the conclusion that this colony has thus arisen. Through the kindness of Mrs. Weatherby, who has freely given the use of her skill, the habit and essential points of this interesting plant are shown in Plate 125. The plant, being of such unusual interest, should have a definite name for convenience of reference and it is here proposed as

× Cyperus **Weatherbianus**, n. hybr. = Cyperus dentatus × Rynchospora capitellata, habitu ut apud *Rynchosporam capitellatam;* culmis caespitosis 3–4.8 dm. altis gracilibus laevibus; foliis subcoriaceis basilaribus anguste linearibus elongatis, caulinis 5–7 valde reductis; corymbis subumbelliformibus terminalibus axillaribusque, terminalibus 1.3–2 cm. diametro; spiculis confertis valde

[1] See Blake, Rhodora, xx. 27 (1918).

adscendentibus castaneis anguste lineari-cylindricis 0.5–1 cm. longis; squamis 20–40 densissime spiraliter imbricatis castaneis membranaceis oblongis 1.5–2 mm. longis subcarinatis breviter aristatis; floribus sparsissimis plerumque nullis; spiculis secondariis ut apud *Rynchosporam* minutis; perianthiis nullis; achenio abortivo minuto, stylo 2-partito, tuberculo subulato.

Habit as in *Rynchospora capitellata;* culms cespitose, 3–4.8 dm. high, slender and smooth: leaves somewhat leathery; the basal narrowly linear, elongate; the cauline 5–7, greatly reduced: corymbs somewhat umbelliform, terminal and axillary; the terminal 1.3–2 cm. in diameter: spikelets crowded, strongly ascending, chestnut-brown, slenderly linear-cylindric, 0.5–1 cm. long: scales 20–40, very densely spirally imbricated, chestnut-brown, membranaceous, oblong, 1.5–2 mm. long, somewhat keeled, short-awned: flowers very scarce, mostly wanting: secondary spikelets as in *Rynchospora,* minute: perianth wanting: achene aborted, minute; style 2-parted; tubercle subulate. — Massachusetts: sandy shore of Simmons Pond, Dennis, September 30, 1915, *C. A. Weatherby* (type in herb. New England Botanical Club), and collected apparently from the same clump, August 22, 1918, *Fernald & Long,* no. 16,287. Plate 125.

Gray Herbarium.

Explanation of Plate 125.

Fig. 1. ×*Cyperus Weatherbianus,* portion of clump × ½.
Fig. 2. " " terminal corymb × 1.
Fig. 3. " " spikelet × 2.
Fig. 4. " " scale × 6.
Fig. 5. " " denuded rhachilla, showing secondary spikelets × 15.
Fig. 6. *Cyperus dentatus,* spikelet × 2.
Fig. 7. *Rynchospora capitellata,* spikelet × 2.

FURTHER NOTES ON POTAMOGETON.

Harold St. John.

Potamogeton vaginatus Turcz. is represented in the Herbarium at the Jardin des Plantes, Paris, by a suite of specimens with abundant fruiting spikes. These show that in spite of the phrasing of the original description[1] and of the colored representation in Fryer's

[1] Turcz. Bull. Soc. Nat. Moscou, xi. 102 (1838), xxvii. 65 (1854), Fl. Baical.-Dahur. ii. 162 (1856).